

What is claimed is:

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1. A bat comprising:
a hitting surface;
a handle element attached to the hitting surface; and
a sleeve positioned within the hitting surface, wherein the hitting surface and the sleeve are comprised of composite materials.

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2. The bat of claim 1 wherein the hitting surface has a first stiffness and the sleeve positioned within the hitting surface has a second stiffness different than the first stiffness.

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3. The bat of claim 1 wherein the hitting surface has a first stiffness and the sleeve positioned within the hitting surface has a second stiffness different than the first stiffness, wherein the second stiffness is approximately 3 times the stiffness of the first stiffness.

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4. The bat of claim 1 wherein the hitting surface is made from a first set of fibers and a first resin and wherein the sleeve is made from a second set of fibers and a second resin, the second set of fibers and the second resin being different than the first set of fibers and first resin.

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5. The bat of claim 4 wherein the first set of fibers includes a tubular sock.

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6. The bat of claim 4 wherein the second fiber and resin is impregnated in the second set of fibers.

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7. The bat of claim 6 wherein the second fiber and second resin is an E-glass fiber impregnated resin.

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8. The bat of claim 4 wherein the second set of fibers and resin is a sheet of material.

9. A method of forming a bat comprising:
forming a tubular hitting surface;
forming a sleeve from composite material; and
fitting the sleeve within the tubular surface.

10. The method of claim 9 wherein the step of fitting the sleeve within the tubular surface comprises force fitting the sleeve within the tubular hitting surface.

11. The method of claim 9 wherein the step of forming a sleeve from composite material comprises laying up a plurality of layers of material.

12. The method of claim 11 wherein laying up a plurality of layers of material further comprises laying up a first layer of material and a second layer of material at different angles.

13. The method of claim 11 wherein laying up a plurality of layers of material further comprises laying up a first layer of material and a second layer of material at different angles, wherein the angles of laying up are varied to change the nodes of vibration within the bat.

14. The method of claim 9 wherein the step of forming a sleeve from composite material comprises:

laying up a plurality of layers of material; and
wrapping the plurality of layers about a mandrel.

15. The method of claim 9 wherein the step of forming a sleeve from composite material comprises:

laying up a plurality of layers of material;
wrapping the plurality of layers about a mandrel; and
wrapping tape over the plurality of layers about the mandrel.

16. The method of claim 14 wherein the step of wrapping tape includes:

wrapping a first layer of tape to produce a release layer; and
wrapping a second layer of tape to produce a strength layer.